

# Unit Outline (Higher Education)

**Institute / School:** Institute of Innovation, Science & Sustainability

**Unit Title:** Analytical Decision Making

**Unit ID:** BUMGT5981

**Credit Points:** 15.00

**Prerequisite(s):** Nil

**Co-requisite(s):** Nil

**Exclusion(s):** (BUMGT5980)

**ASCED:** 080399

**Description of the Unit:**

The course enhances student understanding of analytical decision making supported by numerical data and statistical procedures. Topics include practice-based learning contextualised across business and management. Coursework and research-based assessment may include interactive group work, case studies and situational exercises where students apply quantitative methods relevant for understanding and/or solving organisational challenges and problems. An applied focus introduces concepts fundamental to understanding and interpreting numeric data and statistical analysis. Designated numerical techniques are relevant to fields including human resource management, marketing and management.

**Grade Scheme:** Graded (HD, D, C, P, MF, F, XF)

**Work Experience:**

No work experience

**Placement Component:** No

**Supplementary Assessment:** Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

**Course Level:**

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Introductory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Learning Outcomes:

#### Knowledge:

- K1.** Define contexts suitable for numeric-based analysis supporting good decisions
- K2.** Identify pertinent sources of numeric data and/or suitable methods for generating these data
- K3.** Recognise appropriate statistical techniques for data analysis including strengths and limitations
- K4.** Infer results from data analysis applicable to business and management challenges or problems

#### Skills:

- S1.** Perform fundamental numerical and statistical analysis including data input and hypothesis testing
- S2.** Apply numerical tools and methods to analyse business and management challenges or problems
- S3.** Interpret results and finding from numerical analysis including implications
- S4.** Develop suitable decision support systems supporting good business practices

#### Application of knowledge and skills:

- A1.** Identify and evaluate workplace contexts relevant for numerical analysis
- A2.** Develop methods to effectively communicate numerical results to stakeholders
- A3.** Illustrate workplace examples where numerical analysis support good decision-making
- A4.** Explain processes for developing decision-support systems for relevant work-place scenarios

#### Unit Content:

- Introducing analytical decisions
- Numeracy, probability, risk and modelling
- Data analytics and big data
- Generating and assessing valid data
- Fundamental statistical techniques
- Capacity and demand
- Service quality
- Supply chain analysis
- Forecasting
- Selecting a project portfolio
- Staff selection, KPIs, attrition and satisfaction
- Advanced data models and decision support systems

#### Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1;K2;K3;K4.	Individual self-managed formative assessment - 60 questions (12 topics, 5 questions per topic).	Online quiz	10%-20%
K1;K2;K3;K4; S1;S2;S3;S4; A1;A2;A3;A4.	Online group presentation for specified numerical case study incorporating peer review.	Group or individual research work	20%-30%
K1;K2; S1;S2; A1;A2.	Individual summative task - addressing scenarios	Quantitative assignment	20-30%
K1;K2;K3;K4; S1;S2;S3;S4; A1;A2;A3;A4.	Individual summative task testing objectives	Final examination	40-50%

### Adopted Reference Style:

APA ()

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)